



# SOLAR WATER HEATING (SWH) TECHSCOPE ANALYSIS TOOL



## WHAT IS THE SWH TECHSCOPE ANALYSIS TOOL?

The *Solar Water Heating TechScope Market Readiness Assessment Analysis Tools*, **SWH TechScope Analysis Tool**, is an Excel-based evaluation tool following the *SWH TechScope Market Readiness Assessment Methodology*, which provides stakeholders with the ability to benchmark and evaluate specific countries' SWH support framework, national conditions, financing environment and business climate. This tool is designed for use in any country and can be download from the link below :

<http://www.solarthermalworld.org/content/solar-water-heating-techscope-market-readiness-assessment-report-and-analysis-tool>



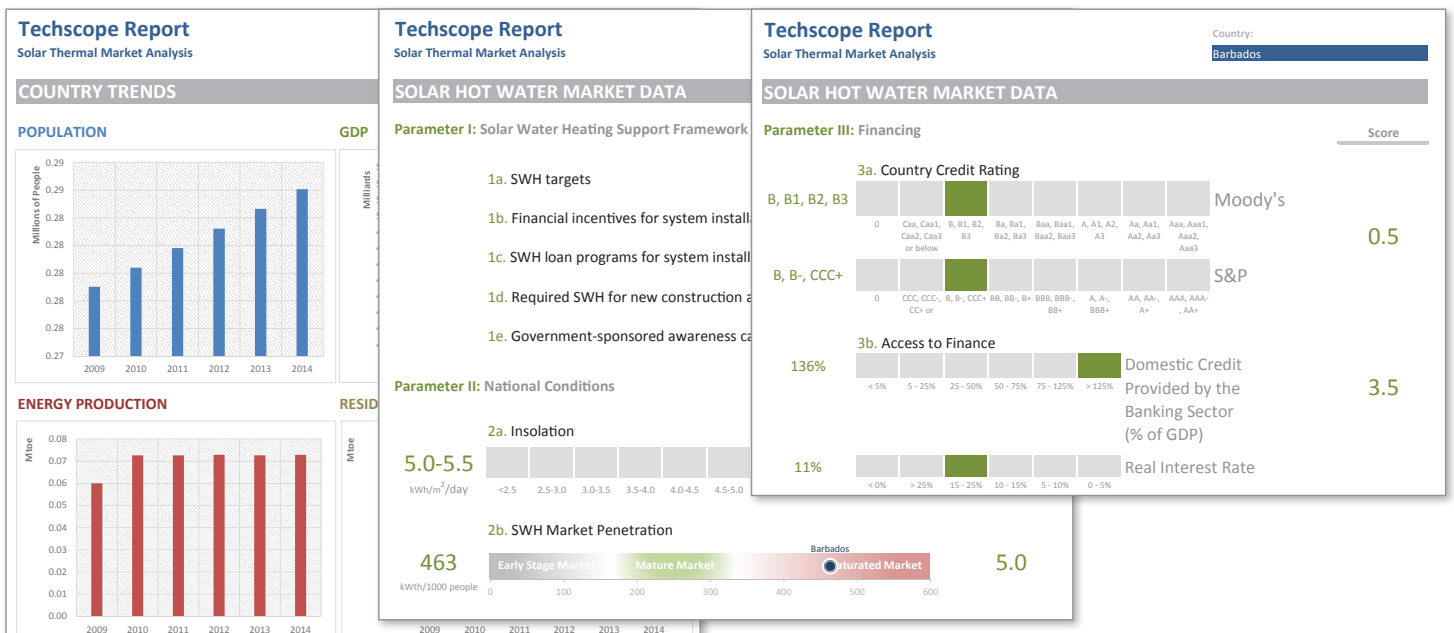
## WHAT CAN BE CALCULATED?

- A SWH market readiness **overall score** that can be used to benchmark the current status of different countries' SWH markets in a standard manner.
- It can also be used to **evaluate SWH support programs** by comparing the scores from both before and after a program implementation.

Techscope Report						Country:
Solar Thermal Market Analysis						Barbados
SUMMARY OF RESULTS						
Parameter	Parameter Weight	Indicator Weight	Indicator	Raw Score	Weighted Score	
I. Solar Water Heating Support Framework	29%	5%	SWH Targets	5.0	0.25	
		8%	Financial Incentives for System Installation	5.0	0.40	
		7%	SWH Loan Programs	5.0	0.35	
		5%	Building Mandates	0.0	0.00	
		4%	Outreach Campaigns	5.0	0.20	
II. National Conditions	30%	5%	Insolation	3.3	0.17	
		4%	SWH Market Penetration	5.0	0.20	
		5%	Residential Energy Consumption Growth	0.0	0.00	
		4%	SWH Market Growth	3.0	0.12	
		7%	SWH Competitiveness: Payback Period	4.0	0.28	
III. Financing	20%	5%	SWH Competitiveness: Heating Fuel	0.0	0.00	
		5%	Country Credit Rating	0.5	0.03	
IV. Business Climate	21%	15%	Access to Finance	3.5	0.53	
		5%	Doing Business Index	3.0	0.15	
		3%	Manufacturing Capacity	5.0	0.15	
		5%	Product Standards and Certification	1.0	0.05	
		4%	Installer Certification	0.0	0.00	
		4%	Industry Association	5.0	0.20	
<b>Overall Score</b>					<b>3.07</b>	

## THE FINAL SWH TECHSCOPE REPORT

Results can be viewed in a summary table showing the final scores for each indicator. The *SWH TechScope Analysis Tool* can also be used to generate a summary report which provides relevant country data as well as a visually informative overview of each indicator's input value(s) and resulting.





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## HOW DOES IT WORK?

The *SWH TechScope Analysis Tool* can be used to calculate the *SWH TechScope Score* for a given country. The *Tool* should be used in conjunction with the guidance contained in the companion report: *Solar Water Heating TechScope Market Readiness Assessment*. To calculate the *SWH TechScope Score* for a country, you need to complete two input sheets: the «Country Data» sheet and the «TechScope Inputs» sheet. The *SWH TechScope*

Scores are based on **18 indicators** spread across the following **4 parameters**:

- Solar Water Heating Support Framework
- National Conditions
- Financing
- Business Climate

## DESCRIPTION OF INPUT SHEETS

### COUNTRY DATA

In this section the user enters specific country data. This data is very valuable to provide additional national context to the final *SWH TechScope Report*. The country information required is:

#### 1. Socioeconomic data

#### 2. Energy data

<b>Country Name</b>		Barbados	
<b>1 Socio-economic data</b>			
<b>1a</b>	<b>Data Description</b>	<b>Data Source</b>	<b>Unit</b>
	Population	<a href="#">World Bank</a>	#
	GDP	<a href="#">World Bank</a>	USD
<b>2 Energy data</b>			
<b>2a Balance indicators</b>			
	<b>Data Description</b>	<b>Data Source</b>	<b>Unit</b>
	Energy Production	<a href="#">IEA: Indicators</a>	Mtoe
	Residential Energy Consumption	<a href="#">IEA: Balances</a>	Mtoe
	Average Year-on-Year Growth in Residential Energy Consumption		
<b>2b Primary Fuels for Residential Heating<sup>1</sup></b>			
	<b>Heating Fuel</b>	<b>% of Total Heating</b>	<b>Average retail price of primary heating fuel (\$/kWh<sub>th</sub>)</b>
	Oil	0.0%	
	Natural Gas	0.0%	
	Electricity	65.0%	\$ 0.28
	Wood	0.0%	
	Other	35.0%	
	Total	100.0%	

### TECHSCOPE INPUTS

In this section the user enters information on the four parameters and 18 indicators described in the *SWH TechScope Market Assessment Methodology*:

- 1. Solar Water Heating Support Framework:** SWH Targets, Financial Incentives, Loan Programs, Building Mandates and Outreach Campaigns.
- 2. National Conditions:** Solar Insolation, SWH Market Penetration, Residential Energy Consumption Growth, SWH Growth, Payback Period and Heating Fuel Subsidy.
- 3. Financing:** Country Credit Rating and Access to Finance.
- 4. Business Climate:** Doing Business Index, Manufacturing Value Added, Product Standards and Certification, Installer Certification, Industry Association

### SOLAR HOT WATER MARKET DATA

<b>Country Name</b>		Barbados	
<b>1 Parameter 1: Solar Water Heating Support Framework</b>			
<b>1a</b>	<b>SWH Targets</b>		
	Has the country established a solar thermal target?		
<b>1b</b>	<b>Financial Incentives for System Installation</b>		
	Does the country offer financial or fiscal incentives for SWH system installation? These may include, for example, direct cash payments (e.g. grants, rebates, performance-based incentives, and feed-in tariffs) or tax incentives (e.g. tax credits, income tax deductions, etc.)		
<b>1c</b>	<b>SWH Loan Programs</b>		
	Does the country offer loan policies or programs supporting SWH system installation, such as low-interest loan programs, interest rate buy-down programs, and loan loss reserves?		
<b>1d</b>	<b>Building Mandates</b>		
	Does the country require that solar heating (or renewable heating more broadly) be integrated into new construction and/or major renovations of buildings?		

## THE SCORE

Once the inputs sheets have been completed, the *SWH TechScope Analysis Tool* automatically scores the information entered in accordance with the methodology described in the full *SWH TechScope Market Readiness Assessment Report*.

Finally the score table will provide a summary of the country's score for each parameter and a final score for the country's overall strength of the SWH market.

